APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/751,871	12/29/2000	Yunus Mohammed	M61.12-0334	8553

27366	7590	11/14/2006

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EXAMINER
OPSASNICK, MICHAEL N

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>24 August 2006</u>.

2a) ☒ This action is **FINAL.**   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-31</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-11,19-22,27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Burrows (6021409) in view of Sarukkai et al (5819220).

        As per claims 1,27, Burrows (6021409) teaches:

                "receiving a word list.....word list" as receiving word list from paring module

containing words as well as their contents (col. 6 lines 60-67)

                "selecting word from the word list" as choosing the word (col. 11 lines 14-16)

                "generating an index.....word" as index corresponding to the word (col. 11 lines

4-7)

                "encoding the selected word.....data" as encoding the words (col. 12 lines 50-63;

col. 14 lines 48-55)

"writing the encoded word.....memory" as storing the entries (col. 12 lines 50-

67).

Burrows (6021409) does not explicitly teach using the word techniques in a

speech related application (Burrows (6021409) teaches the use of the word techniques in

an internet environment), however, Sarukkai et al (5819220) teaches using word list

techniques in web based speech applications (Fig. 3, subblock 32,40,42, interacting with

a speech recognition engine, subblock 36). Therefore, it would have been obvious to one

of ordinary skill in the art of internet information portals to adapt the teachings of

Burrows into speech related web applications because it would advantageously tailor the

speech enabled sites to specific vocabularies (Sarukkai et al (5819220), col. 3 lines 39-

45).

As per claim 2, Burrows (6021409) teaches:

"repeating the steps.....data" as feedback loop for the next word (fig. 2, subblock

59, back to subblock 130, to repeat the page and parsing module)

As per claims 3,22,30, Burrows (6021409) teaches:

"writing the codebooks....lexicon memory" as stored data structure with an index

format and pointer (col. 13 lines 24-32, lines 45-51) can be considered as a codebook.

As per claim 4, Burrows (6021409) teaches:

"counting the words....word list" as using hash encoding to evenly distribute over

the buckets (col. 14 lines 48-55)

As per claim 5, <u>Burrows (6021409)</u> teaches:

"determining….memory" as using index and pointers for the next available

locations (col. 13 lines 45-50)

As per claim 6, <u>Burrows (6021409)</u> teaches:

"calculating…..hash table" as using hash encoding to evenly distribute over the

buckets (col. 14 lines 48-55; and Figs. 9 and 10)).

As per claim 7, <u>Burrows (6021409)</u> teaches:

"writing an offset…..memory" as computing a delta value as an offset (col. 11

line 65 – col. 12 line 6).

As per claim 8, <u>Burrows (6021409)</u> teaches:

"providing…word encoders" as compressing the word entries based on delta

values (col. 11 line 40 – col. 12 line 26; encoding)

"providing….data encoders" as word list with domains such as attributes, and

encoding based on that information (col. 9 lines 21-29)

As per claim 9, <u>Burrows (6021409)</u> teaches Huffman coding (col. 12 lines 45-47)

As per claims 10,27, <u>Burrows (6021409)</u> teaches:

"writing a data structure.....dependent data" as hash encoding used (col. 14 lines

48-58) including content (col. 7 lines 58-63; col. 8 lines 19-26)

"wherein each word dependent data portion....portion" as indicating the word an

location pairs (including content -- col. 7 line 65 – col. 8 line 53)

As per claim 11, Burrows (6021409) teaches:

"writing a data structure....separator" as words and their representations have a

separator (col. 6 lines 56-67)

As per claims 21,28, Burrows (6021409) teaches:

"plurality of fields.....associated field" as reading the attributes (Col. 9 lines 21-

29)

As per claims 21,29, Burrows (6021409) teaches:

"reading a last field....received word" as reading a zero to indicate the end of the

encoding (col. 12 lines 13-15)

As per claims 19, Burrows (6021409) teaches:

"a compressed lexicon.....builder" as word list with domain such as attributes

(Col. 9 lines 21-29)

"a plurality of domain encoders....data" as compressing the word entries based on

delta values (Col. 11 line 40 – col. 12 line 26)

"a hashing component.....word list" as using index and pointers for the next available locations (col. 13 lines 45-50)

"a hash table generator.....lexicon memory" as using hash encoding to evenly distribute over the buckets (col. 14 lines 48-55; and Figs. 9 and 10)).

"a lexicon memory....word" as using index and pointers for the next available locations (col. 13 lines 45-50);using hash encoding to evenly distribute over the buckets (col. 14 lines 48-55; and Figs. 9 and 10)) and computing a delta value as an offset (col. 11 line 65 – col. 12 line 6).

As per claim 20, Burrows (6021409) teaches:

"lexicon memory generator....memory" as words and their representations have a separator (col. 6 lines 56-67).

As per claim 31, Burrows (6021409) teaches an index and pointer tied in with the word portions as using index and pointers for the next available locations (col. 13 lines 45-50) and using hash encoding to evenly distribute over the buckets (col. 14 lines 48-55; and Figs. 9 and 10)).

3.   Claims 12-18,23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burrows (6021409) in view of Pringle et al (6470306).

As per claim 12, Burrows (6021409) teaches:

"receiving the word....word information" as searching the index, accessing and

decoding (col. 5 lines 15-35, and col. 6 lines 17-42)

Burrows (6021409) does not explicitly teach using the word manipulating

apparatus for speech lexicon applications, however, Pringle et al (6470306) teaches a

natural language translation system shuffling and translating word information between a

user interface and a database (Fig. 1). Therefore, it would have been obvious to one of

ordinary skill in the art of speech word processing to incorporate the lexicon database

system and structure and taught by Burrows (6021409) into a speech translation system

as taught by Pringle et al (6470306) because it would advantageously improve the storage

and access of the word information (Burrows (6021409) col. 2 lines 61-66) into a natural

language translation (Pringle et al (6470306), col. 2 lines 40-60).

As per claim 13, Burrows (6021409) teaches:

"prior to reading......word" as verifying the candidate for the query (col. 6 lines

34-37)

As per claim 14, Burrows (6021409) teaches:

"reading a plurality.....information" as reading words as well as marks (col. 7

lines 13-23)

As per claims 15, Burrows (6021409) teaches:

"plurality of fields.....associated field" as reading the attributes (Col. 9 lines 21-29)

As per claims 16,25, <u>Burrows (6021409)</u> teaches:

"reading a last field....received word" as reading a zero to indicate the end of the encoding (col. 12 lines 13-15)

As per claim 17, <u>Burrows (6021409)</u> teaches:

"initializing......information" as initializing the readers for each searched word (col. 20 lines 52-67)

As per claim 18, <u>Burrows (6021409)</u> teaches:

"calculating a hash value....lexicon" as using hash encoding to evenly distribute over the buckets (col. 14 lines 48-55; and Figs. 9 and 10)).

As per claim 23, <u>Burrows (6021409)</u> teaches:

"a compressed lexicon.....builder" as word list with domain such as attributes (Col. 9 lines 21-29)

"a plurality of domain encoders....data" as compressing the word entries based on delta values (Col. 11 line 40 – col. 12 line 26)

"a hashing component.....word list" as using index and pointers for the next available locations (col. 13 lines 45-50)

"a hash table generator.....lexicon memory" as using hash encoding to evenly

distribute over the buckets (col. 14 lines 48-55; and Figs. 9 and 10)).

"a lexicon memory....word" as using index and pointers for the next available

locations (col. 13 lines 45-50);using hash encoding to evenly distribute over the buckets

(col. 14 lines 48-55; and Figs. 9 and 10)) and computing a delta value as an offset (col. 11

line 65 – col. 12 line 6).

Burrows (6021409) does not explicitly teach using the word manipulating

apparatus for speech lexicon applications, however, Pringle et al (6470306) teaches a

natural language translation system shuffling and translating word information between a

user interface and a database (Fig. 1). Therefore, it would have been obvious to one of

ordinary skill in the art of speech word processing to incorporate the lexicon database

system and structure and taught by Burrows (6021409) into a speech translation system

as taught by Pringle et al (6470306) because it would advantageously improve the storage

and access of the word information (Burrows (6021409) col. 2 lines 61-66) into a natural

language translation (Pringle et al (6470306), col. 2 lines 40-60).

As per claim 24, Burrows (6021409) teaches:

"lexicon memory generator....memory" as words and their representations have a

separator (col. 6 lines 56-67).

As per claim 26, Burrows (6021409) teaches:

"writing the codebooks....lexicon memory" as stored data structure with an index

format and pointer (col. 13 lines 24-32, lines 45-51) can be considered as a codebook.

Response to Arguments

4.   Applicant's arguments dated 8/29/06 have been fully considered but they are not

persuasive. As per applicants arguments that "a compressed speech lexicon" equates to "lexicon

to be used in a speech application", examiner argues that a compressed speech lexicon is defined

as, or known as, a dictionary that stores information relating to speech. With respect to the

arguments presented on page 11 of the response, examiner disagrees and argues notes that the

recited passage from Burrows, ".....word 300...used to represent many different possible

content modalities and data record specifications", and as such, represents word dependent data.

As to the arguments against word selection, examiner notes that in the process of Burrows in the

word ordering, words are selecting and shuffled into and out of memory according to the stored

information. As to the arguments presented on the first half of page 12 of the response, examiner

disagrees and notes that the index for the word equates to a memory location, and that the

encoding details pertain to the word information. The arguments from the bottom of page 12 to

page 13, applicant's representative continues to attempt to expand the accepted meaning of

speech lexicon memory, and that the applicant's representative is relying upon claim

interpretations that are not recited in the rejected claim(s). Although the claims are interpreted in

light of the specification, limitations from the specification are not read into the claims. See *In*

re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The arguments on page 13

repeat the arguments against claim features that are in applicant's specification, but not included

in the current scope of the claims. As per applicant's arguments on page 14 of the response

towards hindsight, examiner notes that the motivation to combine the references has come from

the references themselves. Furthermore, In re Rouffet pertains to a combination of references

teaching the limitations of the claim, but no motivation to combine the references. Clearly, this

does not apply since the examiner has presented motivation to combine the references, such

motivation derived from the references themselves. With respect to the In re Lee reference, *In

re Lee,* 277 F.3d 1338, 1342-44, 61 USPQ2d 1430, 1433-34 (Fed. Cir. 2002) (discusses the

importance of relying on objective evidence and making specific factual findings with respect to

the motivation to combine references). Again, the evidence to combine has come from the

reference themselves, and not from a subjective (non-objective) source.

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

        A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

6.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Michael Opsasnick, telephone number (571)272-7623,

who is available Tuesday-Thursday, 9am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mr. Richemond Dorvil, can be reached at (571)272-7602. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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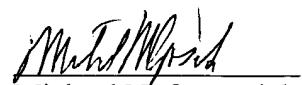
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